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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/506,458

09/01/2004

Ho Sung Kim

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2352 7590 11/05/2008
OSTROLENK FABER GERB & SOFFEN
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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

11/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/506,458	Applicant(s) KIM, HO SUNG	
	Examiner Irina S. Zemel	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner notes that according to the PTO official record, the correspondence address for the instant application is OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK NY 10036-8403. Should this address be incorrect, the applicants are advised to bring this fact to the examiner's attention ASAP.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 6 and 8-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitations "volume of space within said microspheres is greater than a total volume of space between the microspheres" is not supported by the specification as originally filed. The limitation regarding relative volume of space within microspheres and the volume of space between the microspheres, is not supported by either the specification or the originally filed drawings. The figure relied upon for the support is clearly marked as "diagrammatic" view and not a figure where all of the components are drawn to the

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scale. It is not possible from a diagrammatic view to assess the actual values for the claimed respective volumes as it is not clear what constitutes volumes in between the microspheres and what is the volume of space within the microspheres, since it is impossible to assert how thick are the walls, and since none of the example is given of what the "microsphere" actually is, it is impossible to assert its internal space volume. and also, as noted above, nothing is drawn to scale. In addition, the diagramic drawings are two-dimensional, which provides no information whatsoever regarding actual packing of the microspheres with respect of the volume between the microspheres.

Claim Rejections - 35 USC § 102/103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 6-10 are rejected under 35 U.S.C. 103(a) as obvious over AU Patent Application 200151857 to De Toffol (hereinafter AU De Toffol) under 35 U.S.C. 103(a) as obvious over its US corresponding patent 6,476,087 to De Toffol (hereinafter US De Toffol).

The rejection stands as per reasons of record. Insofar as the limitation to the Liquid being removed from the mold only through the "opening", the disclosed process does not limit the liquid removal from the mold through the only opening in the bottom of the mold. However, since, as discussed in the previous office action, the pores of the wicked mold disclosed by the reference define plural opening in the bottom of the mold

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(as well as any other part of the mold) through which the excess of liquid phase flows away from the mold, use of several openings in place of only one for the same function constitute mere duplication of part in the mold, and, therefore, is prima facie obvious.

Insofar as the added limitation regarding microspheres floating to the top “such that a total volume of space within said microspheres is greater than a total volume of space between the microspheres”, this limitation, as discussed above, is not supported by the original specification. However, as discussed in the previous office actions, since the density of the foams disclosed in the reference is governed to a large extent by the volume of the interstitial space or volume between the microspheres, varying the volume between the microspheres would have been obvious as varying a result effective variable, i.e., to achieve the foams of desired density.

Response to Arguments

Applicant's arguments filed 11-30-2007 have been fully considered but they are not persuasive.

On the onset, the examiner wishes to emphasize, that ANY amendment that recites any relative dimensions or sizes of any of the components in the mixtures that relies on its support on the drawings only will be held in violation of requirements of 112, first paragraph, since those drawings are merely diagrammatic in nature and are NOT drawn to the scale so that it can provide conclusive support for such limitations.

If the applicants are of the opinion that the language of the original specification, i.e., “closed packed array” (first recited in claims in the amendment dated 8-18-2006) is,

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by itself, a term of art which is understood by one of ordinary skill in the art to have specific meaning, the applicants should have presented arguments and evidence to that extent in response to the office actions that first raised concerns about this phrase being recited in claims, i.e., the office action dated 11-7-2006. It is the applicants choice of whether or not to file evidentiary support for their assertions however, since this action is made final, any such support may not be considered (as not timely filed) if filed after the final rejection.

Insofar as the arguments regarding the rejection of claims over DeToffol reference, this arguments are answered in the body of the rejection above. While the reference does not disclose the specific mold with only one opening at the bottom and the process where the liquid is removed from only one opening, as discussed above, such step is not considered to patentable distinguish over the disclosure of the cited reference.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/
Primary Examiner, Art Unit 1796

Irina S. Zemel
Primary Examiner
Art Unit 1796

ISZ